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KERALA GAZETTE

ആധികാരികമായി പ്രസിദ്ധപ്പെടുത്തുന്നത്

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PART III

Stores Purchase

Animal Husbandry Department

TENDER NOTICE

No. AHD-DVC/TVM/81/2021. *1st September 2021.*

Sealed and competitive Expression of Interest (EOI) for (Running Contract) is invited for the supply of Veterinary Medicines and Disposables for the use of Nyayavilla Medical Store of the Thiruvananthapuram District Panchayath for the year 2021-2022. Tenderers should submit the documents specified so as to reach the office in Serial No 6. The envelop should be superscribed as "EOI for the Supply of Veterinary Medicines for Nyayavilla Medical Store 2021-2022". The tender forms are not transferable. Cheques, postage stamps, etc., will not be accepted towards the cost of forms, nor will the forms be sent per V.P.P.

Tender number and date—81/21-22, 1-9-2021

Place from where tender form is available—District Veterinary Centre, Thiruvananthapuram.

Last date and time for sale of tender—25-9-2021, 11 a.m.

Cost of tender form:—

Original—₹ 1,000+GST 28%.

Duplicate—₹ 500+GST 28%.

Last date and time for receipt of tender—25-9-2021, 2 p.m.

Date and time of opening of tender—25-9-2021, 3 p.m.

Earnest Money Deposit (Rupees)—Nil.

Firm Period—12 months.

Officer to whom tender is to be submitted (Designation and Address)—Chief Veterinary Officer, District Veterinary Centre, Thiruvananthapuram.

To be written on the cover in which tender enclosed—EOI for: Supply of Veterinary Medicines as per Tender Number: 81/21-22. Dated 1-9-2021.

Sealed EOI are invited for the fixing of Running Contract for the supply of goods given in the Schedule. The amount quoted shall be for delivery of goods at the site shown in the table. Quotes received late, without specifying firm period with price variation clauses and incomplete quotes will not be accepted. Maximum number of days for delivery of good should invariably be stated in the Quote.

Special Conditions

1. The leaflets, illustrated catalogs, of the medicine/ equipment/instrument quoted and sample shall be sent along with tender.
2. The item should be available in the local market, of latest standards: (WHO/OIE) should have minimum 75% of shelf life left under normal storage condition at the time of supply.
3. The rates quoted should be inclusive of all taxes, duties, cesses etc.
4. Offers of conditional supply will not be considered.
5. All offers should be from ready stock in the original packing of the manufacturer.
6. Packing and containers of drugs shall be as prescribed in pharmacopeias or drugs and cosmetics Rules 1945. Containers made of good plastics must be used for those items which are to be supplied in plastic containers. Tablets and boli are to be supplied in strips or blister packs. Equipments and components should be supplied in its original packing.
7. The tenderers should give the patent name of the medicine/items specifically in their tender and the rate should be quoted against the same. Literature showing the composition of the medicine and details of dosage schedule recommended by the manufacturer should be given along with the tender. The quote can have the variants of presentations available with the manufacturer for one compound or preparation can be made in the same serial number. For equipments and instruments the technical details should be explicitly mentioned in the tender. Change in the specification of the medicine/item will not be accepted after placing orders.
8. The Security Deposit (to be intimated to successful bidders) furnished will be released only after satisfactory completion of the contract.
9. The rates should be for delivery F. O. R. at the destinations specified in the supply order.
10. Ex-godown rates and F. O. R station of Despatch rates offered by the firms are not acceptable and such tenders will be summarily rejected.
11. The quantities specified in the schedule are only approximate and they may vary according to actual need.
12. The successful tenderers should quote the Rate for fixing running contract for a period of 12 months from the date of signing agreement and complete all supplies within the stipulated time.
13. The non-availability of raw materials, price, hike of raw materials, transportation problems etc. will not be accepted as reasons for non-supply or late supply.
14. The rates should be quoted in Indian Currency and payment will be made in Indian Currency only.
15. The Chief Veterinary Officer, District Veterinary Centre reserves all rights to cancel the tender without assigning any reason thereof.
16. The only jurisdiction for any dispute regarding this purchase will be at Thiruvananthapuram.
17. The photocopies of the documents produced along with the tender should be attested by a Gazetted Officer or Notarized.
18. If the date scheduled for opening of tender is declared as holiday, tenders will be opened on the next working day at the same time.
19. Name and place to which the items are to be supplied will be specified in the supply order.
20. If any item is found to be nearing expiry date, the same should be taken back on request from the undersigned or authorized person.
21. The undersigned reserves the right to delete or waive any of the above special conditions.

District Veterinary Centre, (Sd.)
Thiruvananthapuram. *Chief Veterinary Officer.*

Fire and Rescue Services Department

e-TENDER NOTICE

Notice Inviting e-Tender for the purchase of 2 Nos of Turn Table Ladder

No. M1-8490/2018. *30th July 2021.*

e-Tenders in two cover system are invited from competent manufacturers/Fabricators or their authorised dealers in India (Through the authorised dealer in India for the firms which are abroad and having no production or franchise in India) with adequate stock and spares and repair capabilities for the supply of 2 Numbers of Turn Table Ladder as per the specifications of this Department. The tender is to he submitted as e-tenders through the web portal https://etenders.kerala.gov.in. Since this is an e-tender, only those bidders who have enrolled in the above portal with their own Digital Signature Certificate (DSC) can participate in the tender.

E-Tender document and other details can be obtained from the above e-portal.

The tender has two parts:

1. *Technical bid.*
2. *Financial bid (BOQ).*

Tender No. with PAC—KFRS-e-Tender- No. 01/2021-22/SN—₹ 2,800 lakhs.

EMD—1% of PAC in online payment.

Security Deposit—5% of total contract amount. To be furnished as Bank guarantee of a Nationalised or Scheduled Commercial Bank.

Cost of e-Tender (online submission)—₹ 25,000+ GST @ 18% (GST shall be paid by the bidder through GST payment methods in reverse charge basis).

Date of prebid meeting—24-8-2021, 11 a. m.

Closing date and time of e-tender—22-9-2021, 4 p. m.

Last date and time of receipt of e-tender—22-9-2021, 4 p. m.

Date of Samples/Documents/Presentations Verification—27-9-2021, 2.30 p.m.

Date & time of opening of e-Tender:

1. Technical bid—27-9-2021, 11 a.m.
2. Financial bid—30-9-2021, 11 a.m.

Date upto which the rates are to remain firm for acceptance—31-3-2022.

Period of supply—Within 270 days from the date of supply order.

The bidder desiring to take part in the bid shall log into https://etenders.kerala.gov.in and then select tender and make the payment. Bidders will be directed to the payment gateway page of the State Bank of India. There are two options—State Bank of India Net banking payment, payment through NEFT from other banks to the payment gateway of SBI.

For obtaining Digital Signature Certificate (DSC) and necessary portal enrolment bidders can visit the website https://etenders.kerala.gov.in.

Tenders will be opened online in the presence of such tenderers or their authorized representatives who have logged in, on their own, before the prescribed time of opening of technical & financial bids. If the date fixed for opening happens to be a holiday/unable to open the tender due to technical issues, the tenders will be opened in the next working day, at the same time.

The tenderer or his representative, shall be physically present at the Fire and Rescue Services Headquarters on the date prescribed with necessary documents and audio visual presentations on all the technical aspects of the Appliance to be fabricated and accessories for the complete understanding of the evaluation committee and verification. The firm shall give in writing any aspect of construction of the Appliance or any of the accessories, if asked by the evaluation committee during the presentation. The offer of any firm, which fails to represent in the presentation and evaluation in the prescrbed date and time or fails to give complete details of the proposed construction of the Appliance including accessories during presentation, will be rejected.

The tender fee and EMD shall be received only through online payment SBI/SBI NEFT

The cost should be quoted in Indian Currency only.

The tender has two covers:

- Technical cover
- Financial cover

The first cover i.e. the technical cover shall be uploaded with the following document:

1. Scanned copy of Departmental Technical specification of the product intended to supply duly signed and stamped by the bidder.

The Bidder should go through each and every aspect of the Departmental Technical Specification thoroughly before submitting the tender. The product shall be supplied strictly as per the Departmental Technical Specification. Bidder should sign, stamp and upload the Departmental Technical Specification as such, along with the tender. Uploading the duly signed and stamped Departmental Technical Specification will be treated as the applicant is ready to supply the product as per the Departmental Technical Specification without any deviation.

In case, if the bidder wants to suggest any deviation from the Departmental Technical Specification, the bidder shall fill and upload specification compliance statement in the following proforma, clearly marking the details of deviation. The committee will check the admissibility of the deviation mentioned by the bidder and the tender will be admitted only if the deviation proposed by the bidder is acceptable for the Departmental Technical Committee. Deviations, if any, shall be strictly marked in the Specification Compliance Statement itself. If the applicant uploaded the Specification Compliance Statement and no marking is made in the column provided for marking deviation in the statement, it will be treated as the applicant is ready to supply the product as per the Departmental Technical Specification without any deviation. If the deviation suggested by the Bidder is not acceptable to the Departmental Technical Committee, the tender submitted by such bidder will be rejected.

Specification Compliance Statement for Turn Table Ladder.

Sl. No.	*Detail of Departmental Technical Specification*	*Detail of the product offered*	*Deviation from Departmental Technical Specification, if any*

specification compliance statement need to be uploaded only if the bidder wants to suggest any deviation in The Technical Specification of the Department. Otherwise the Bidder need only to sign, stamp and upload the Departmental Technical Specification as such, along with the tender.

2. Scanned copy of the agreement in the prescribed format in Kerala Stamp Paper worth ₹ 200.

3. Solvency Certificate, Turn over Details, Document to prove the nationality of Bidder, Registration details of the Bidder in India, Details of Service Centres I Kerala and Brochure/Description of the product intended to supply.

4. Work Experience Certificate, of the firm/OEM, O.E.M. Authorisation Letter to the firm (if OEM is not participating directly) and other relevant details (if any).

5. Scanned copies of the declaration by the bidder on Kerala Stamp Paper worth ₹ 200 to the effect that no Vigilance Case has been charge sheeted and pending trial at Court against him/his partner/s or any of his directors in connection with fabrication/supply of similar product made earlier to this Department.

I, ... (Name, Address, Firm), do hereby declare that no Vigilance Case have been charge sheeted and pending trial at Court against me, any of my partner/s or any of my directors, in connection with fabrication/supply of similar product made earlier to Kerala Fire and Rescue Services Department/Government of Kerala and none of us or our firm is blacklisted by any Government agencies/PSUs in Kerala.

All the documents uploaded shall be numbered and an index for all the documents which are uploaded shall also be prepared and uploaded along with the documents. All the documents uploaded shall be in English language.

Pre bid meeting

A pre bid meeting will be held at Fire and Rescue Services Headquarters, Thiruvananthapuram on the date and time as mentioned above. Bidders can participated in the pre bid meeting and clarify their doubts, if any. They can clarify their doubts by sending an e-Mail to hq.frs@kerala.gov.in and by contacting The Director (Administration), Fire and Rescue Services Headquarters. Thiruvananthapuram in phone number 09497920102.

Tender opening and evaluation

(a) Soon after the opening of the tender, the tenderers are requested to come to the Fire and Rescue Services Headquarters with documents and presentations on all the technical aspects of the appliance and accessories for the full understanding of the Head Office Purchase Committee (Technical), on the date specified.

(b) There will not be any further communications about the opening of the technical and financial bids separately. Soon on opening the technical bid of e-tenders, the committee constituted to evaluate the technical aspects, will meet and scrutinize the technical specification of equipment submitted with the e-tender.

(c) During evaluation, the tenders will be first evaluated for the compliance of Departmental Technical Specification. Only those tenders which comply with the Departmental Technical Specifications will be considered for subsequent financial evaluation.

(d) Those bidders who can comply with all the requirements and conditions of the tender only need to participate in the tender. Any special condition uploaded by the bidder will not be considered for evaluation.

The bidder should upload all the supporting documents along with the Technical cover.

(e) The originals of Departmental Technical specification compliance statement of the product, agreement in Kerala stamp paper worth ₹ 200, the declaration on Kerala Stamp Paper worth ₹ 200 and Brouchers/Photograph/Diagrams of the fabrication and accessories, OEM Authorisation Letter, if any, and other documents shall be produced before the undersigned soon after the Financial Bid opening.\

(f) The financial bid belonging to those dealers/suppliers who qualified in the technical bid of the equipment as required above by Kerala Fire & Rescue Services Department alone will be considered.

(g) On finalization of technical evaluation, the second cover i.e. the financial bid of the concerned competent firm will be opened and evaluated by the Head Office Committee (Finance).

(h) The details of financial evaluation will be uploaded in the financial evaluation field of the e-tender site, only after consultation with the DPC. The decision of the DPC will be final on the admissibility of the tender and thereafter awarding of the contract.

(i) The right of acceptance or rejection of e-tender or cancelling the tender without assigning any reason, at any stage of tendering, is solemnly vested with the Director General, Kerala Fire and Rescue Services or a committee appointed by him.

(j) Other conditions regarding the Tender is included in the Tender Conditions Attached to this NIT

The rules and regulations prescribed for e-tenders by the Government of Kerala/Store Purchase Manual, Government of Kerala shall be applicable to this e-tender also. If any tenderer wants any clarification on any aspect of the tender, he/she can send email to dt.frs@kerala.gov.in or fax to da.frs@kerala.gov.in.

Details with respect to the e-tender and the details of specifications of the item to be purchased can be obtained from the e-tender website https//etenders.kerala.gov.in

Any legal dispute that may arise in relation to the e-tender formalities will be restricted to the jurisdiction of Thiruvananthapuram District Court.

Detailed Technical Specification Of Turntable Ladder Min. 60 Meter Height with Rescue Lift

The Turntable ladders shall be designed specifically for the purpose of Fire Fighting and Rescue operations in high rise buildings.

1 **Technical Specification**

1.1 **Scope**

1.1.1 To be engineered and produced by an ISO 9001 Quality System certified manufacturer. The minimum working height of the Turntable ladder shall be 60 meter from the Ground. The design of operational stability and structural strength shall be similar to the criteria laid out in EN14043.

1.1.2 The composite unit (60mtrs TTL ladder) should be completely designed, constructed assembled at OEM site, and complete unit with Turn table Ladder be strictly tested and certified to all EN life safety standards.

1.2 **General Requirement**

1.2.1 The Turntable ladder shall be designed specifically for the purpose of fire fighting and rescue to enable firemen to go up and down and to rescue the affected from heights. It shall comprise of adequate number of ladder sections with a cage mounted at the end of top ladder section to rescue people. The entire unit shall be mounted on a Turn-Table hydraulic platform on a Heavy Duty powerful Diesel - Engine chassis of VOLVO / MERCEDES BENZ make, 6x4 with fully factory built cabin and suitable capacity PTO. The Vehicle Chassis shall conform to Latest Emission Norms.

1.2.2 The Turntable Ladder as a composite unit shall be completely designed, constructed and assembled at OEM site & operational stability and structural strength shall be similar to EN14043. Other norms and standards applicable for automatic turntable ladder used for Fire Fighting and rescue operations and the certificate to that effect issued by the tenderer shall be submitted during factory acceptance test.

1.2.3 The Turntable Ladder shall be capable of use at any angle of elevation without any reduction of load capacity of the cage. It shall also rotate 360 degree at any angle of elevation as well as below ground level subject to ladder remaining clear of vehicle body. The machine shall have a rescue cage at the end of the upper ladder.

1.2.4 The appliance shall be compact and fast on the road and easily maneuverable in the crowded streets and around sharp corners. The overall dimensions shall not exceed the limits specified herein.

1.2.5 The minimum working height of the Turntable ladder shall be 60 meter from the Ground.

1.2.6 The design of the Turntable ladder shall allow adequate safety margin for extreme operating and climatic conditions. The safe working loads ratings shall include an allowance for the weight of water system and the reaction from the monitor jet while operation.

1.2.7 The Complete Movement of the Turntable Ladder shall be computer controlled and the system shall be checked for interference sensitivity, and a certificate for compliance of the system with EN 61000-6:2002 and/or EMV directive 89/336EWG shall be furnished along with the tender.

1.2.8 Full safety interlocks shall be incorporated in the design so as to ensure complete safety in operations.

1.2.9 The Vehicle shall have an automatic leveling system to adjust axial and transverse movement, to an angle not less than 10 degree, up to 7 to 7.5 degree.

1.2.10 The max. elevation of ladder shall be possible from-15 to + 75 degree. With jack adjustment, it shall be possible to lower the ladder up to -17.5 degree.

1.2.11 There shall be an effective and efficient full back up system for all ladder movements, lift movements and outrigger movement in case of failure of main system.

1.2.12 The Complete Movement of the Turntable ladder shall be computer controlled and stabilized and the system shall be checked for interference sensitivity according to standards.

1.2.13 The Control system of the Turntable ladder shall be fully tropicalized and able to operate in temperature range from -5 to + 45 degree Celsius in dusty and humid condition without reducing the maximum operating limits.

1.3 **Truck Chassis**

1.3.1 The Chassis shall be of Volvo/Mercedes-Benz make, 6x4, with fully factory built cabin and suitable capacity PTO. The Vehicle Chassis shall be Right Hand Drive and shall comply latest emission norms.

1.3.2 The Chassis shall be homologated from the appropriate authority in India in case not already an approved model

1.3.3 The engine shall be Diesel with direct injection, turbo charged with intercooler.

1.3.4 The engine shall be six cylinder, inline/'V' type, Diesel with direct injection, turbocharged with intercooler. The engine shall develop a power of not less than 400 HP.

1. 3.5 The gearbox shall be automatic type without clutch pedal operation, with the arrangement of suitable capacity PTO required for driving the hydraulic pump for ladder movements.

1.3.6 The Chassis shall be fitted with gearbox mounted, suitable capacity Power Take Off Unit to drive the hydraulic pump for ladder movements and other pumps which are necessary for the appliance.

1.3.7 Rear Axle shall be double type with Hub reduction and differential lock between the wheels and axles.

1.3.8 Chassis frame shall be 'C' Channel section made of high strength steel with cross members.

1.3.9 The Steering shall be integral power steering with collapsible steering wheel and column

1.3.10 The chassis shall be supplied with standard tool kit, hydraulic jack of 20 ton capacity, operator & workshop manuals.

1.3.11 The Brakes shall be dual circuit airbrakes, 'Z' cam typewith ABS system and parking brakes acting on rear wheels

1.3.12 Fuel Tank - Capacity shall be min 250 ltrs.

1.3.13 The Chassis shall be provided with radial Tyres & one spare tyre with disc.

1.3.14 The chassis shall be provided with air conditioned cabin with RED colour, made from high strength steel fully trimmed, external panels hot dip galvanized with hydraulic cab tilting mechanism. The Cab suspension shall be provided with coil spring and shock absorber. The cab shall be provided with adequate ventilation, rear view mirrors, windscreen and power windows, adjustable driver seat, wiper system and along with all other standard fitments. A low frame and cab height in order to reduce the overhead height and lower the center of gravity for better cornering at speed.

The truck chassis must be approved in accordance with the road regulations ruling in India. The truck chassis must be provided with throttle, OEM Factory mounted PTO and PTO engagement control suitable for fire services. Components on the chassis eventually hindering the installation of bodywork such as the fuel tank, air tanks of the breaking system and truck batteries to be repositioned if necessary, but only in consultation with the chassis manufacturer.

1.3.15 The Electrical system shall be 24V, with suitable capacity batteries & Alternator for charging the batteries.The standard electric equipment installed on the truck chassis shall include;(1) Connection of the operating platform electric system with the chassis system in the cab engaged, ladder stowed, Outriggers retracted and lockers shut; (2) Three colour (red, blue and white) beacon light bar on the front of the cab roof with switch on the cab dashboard (3) A 2 tone electronic siren/horn 100 W with switch on the cab dashboard. Furthermore an electric horn shall be mounted on the Chassis cab. The switch for the electric horn shall be mounted on the dashboard within easy reach for driver and co-driver. Audible reverse alarm shall be activated automatically when the gear is put in reverse.

1.4 **Main Operating Data**

The vehicle shall comply the following requirements

1.4.1 Working Height : Working height of the Turn table ladder shall not be less than 60 M.

1.4.2 Overall Dimensions of the appliance in travelling position shall be as per Motor Vehicle Act and CMVR rules prevailing in India.

1.4.3 Max. Working outreach with Min. 270 kg cage load : not less than20 mtrs

1.4.4 Loading capacity of lifting eye under lower ladder set: Not less than 2000 Kg

1.4.5 Rotation-Continuous : 360 degree

1.4.6 Operations at maximum outreach with full working load permitted in wind speed limit not less than 10 m/s

1.4.7 Safe working load in the cage on hard level Ground with dry monitor : 270 kgMinimum

1.4.8 Safe working load in the cage on hard level Ground with Charged monitor : 200 kg Minimum

1.4.9 Max time to jack up for starting main operation : not more than 30 sec.

1.4.10 Maximum safe jacking width of the vehicle when Jacks are fully extended on both sides : Not less than 5.00 mtrs

Width of the vehicle - Not more than 2.55 Mtrs (when jacks are retracted)

Height in travelling position — Not more than 4.1 meters

Overall length of the vehicle — Not more than 12.5 mtr.

1.4.11 Gross Vehicle Weight: The weight factor of appliances is totally depends upon chassis manufacturers and ladder manufacturers. However, it shall be acceptable as per Motor Vehicle Act and CMVR rules prevailing in India. The Chassis GVW shall not be more than 33 tons.

1 .5 **Construction**

1.5.1 The appliance shall be robust in construction; materials used in construction shall be carefully selected for lightness, strength and durability. Use of timber shall be restricted inbodywork and use of rubber shall be avoided as far as possible. Ferrous metal parts shall be treated for anti - corrosion by a method other than electro-plating.

1.5.2 Main Frame:

The main load bearing element of the aerial device shall be strong main frame to take all the loads caused by the operation of the aerial device. The main frame shall be fixed onto the chassis frame with bolts in such a way that chassis performance and durability are maintained, and only after consultation with the chassis manufacturer. The front fixing bolts shall be fitted without springs to allow the chassis frame beams to flex when the outriggers are fully down thus avoiding any stress concentration in the chassis beams. The actual main frame shall be fully welded rectangular steel structure providing high stiffiess and thus maximum comfort and operational safety. There shall be integrated housings for each outriggers on the main frame.

1.6 **Ladder Set**

1.6.1 The appliance shall perform the following functions/operations

1. Elevation
2. Depression
3. Extension & housing of ladder sets. The cage shall be mounted on the upper ladder and shall removable whenever needed.
4. Rotation 360 degree in either direction.
   The ladder set shall operate with an auto tracking system which enables the ladder to work in safe programmed track without an operator.

1.6.2 All the operations shall be electro-hydraulically operated with the help of hydraulic cylinders and Wire ropes (chain systems are not allowed) for telescopic function. The system shall be purpose built to provide smooth takeoff, variable speed range and smooth slowdown, based on the criteria laid down under EN. 14043 or any other relevant standards applicable for these kind of appliances.

1 .6.3 The rescue cage is fixed to the last ladder section. The ladder sections shall be made from high grade, corrosion resistant steel and shall have minimum wind catching area. The ladder sections shall be extended and retracted telescopically and simultaneously. Wind sensor to measure the wind speed shall be installed at the ladder tip with warning signal sent to the main control stand. The wind speed shall be digitally displayed on the monitor screen giving a graphic and visual indication.

1.6.4 The lower ladder section shall be bolted to the turret by means of load measuring bolts for the weighing systems.The ladder sections shall be welded construction; welding method shall be of latest technology to provide high durability and extreme accuracy. For high strength and minimum flexing of the ladder sections, only high tensile strength steels shall be used.

1.6.5 The ladder elevation and lowering shall be controlled by two hydraulic cylinders that both have their separate safety devices and can alone carry the entire load in case of failure of any one of the cylinders.

1.6.6 All ladder sections shall move in a synchronized way and there shall not be any intermediate jerks during extension/retraction. Automatic slowdown mechanism at the beginning of the movement as well as end of the movement shall be provided to all ladder movements. All the moving sections shall be fitted with adjustable guides/rollers to provide smooth and accurate movement. Various maintenance points shall be located well at hand either outside the ladder or behind easily removable covers.

1.6.7 All ladders shall be internally and externally primed and painted for long life span, treated against rust and corrosion.

1.6.8 All necessary hydraulic, electric, air etc. lines up to the cage shall be so installed that these are well protected and not hindering the easy and free movement of the ladders.

1.6.9 The extension and retraction wire ropes shall be so laid that it should not cause any hindrance for a fireman to climb. The ladder rungs shall be Anti Skid design and extension and retraction cables shall be provided with tension adjustment mechanism.

1.6.10 The ladder shall be possible to elevate from-15 to +75 degree angle. The rotation movement shall be continuous through 360 degree in all jack positions at all angle of elevation except for the cabin protection area. In driving condition the ladder set shall be placed on the ladder head rest.

1.6.11 All the sliding sections shall have maintenance free Nylon/Steel rollers for sliding movements and means shall be provided for the lubrication of these rollers at an easily accessible position.

1.6.12 Hook on type additional ladder shall be provided for the access to main ladder assembly from the ground. A lifting eye shall be provided at the head of the main ladder section to lift the load (not less than 2000 kg.)

1.6.13 An attachment system shall be provided in cage for fixing water monitor. The monitor attachment shall be quick connecting type without the use of bolts and nuts and any tools. The monitor can be kept at some other suitable place on the vehicle. The monitor shall be remote controlled which could be operated from the Ground.

1.6.14 All main ladder movements shall be possible individually and simultaneously. While using simultaneous movements there shall not be reduction in the speed of ladder movements. The ladder leveling (plumbing) movement shall be automatic in nature.

1.6.15 The functional, ergonomically designed, main operating control console shall be provided on the left hand side of turntable, with suitable operator seat. The width of the main operator's seat shall not be less than 450 mm to ensure most comfort to the operator. The complete seat assembly shall be similar with EN 14043.

1.6.16 Based on the selected outrigger position and cage load, the system shall automatically select the maximum outreaches to all directions. The system capacity shall enable various outreach curves for each direction. The size of each sector shall automatically be defined based on position of outriggers. The outreach control system shall practically be infinitely variable.

1.7 HYDRAULIC CYLINDERS

1.7.1 The Hydraulic cylinders shall be double acting, fitted with lock valves so as to prevent ladder set and working cage from lowering or the outriggers fiorn retracting in case of pipe or hose failure.

1.7.2 The cylinders shall be provided with automatic dampers to prevent the pressure shocks and shall dampen the movement when a mechanical stop is reached.

1.7.3 Retraction of the outriggers shall be automatically prevented as soon as the ladder set have been lifted up from their transport position by way of electrical or hydraulic interlock system.

1.7.4 The ladder elevation and lowering has to be controlled by two hydraulic-cylinders that both have their separate safety devices and both can alone carry the entire load in case of failure of any one of the cylinders.

1.7.5 The piston rods of the outrigger cylinders shall be protected suitably in order to protect piston rods from damage caused by any external impact.

1.7.6 Lifting of the ladder set from the transport position shall be prevented before the outriggers are in support position and there shall be a limiting circuit to prevent damage to the Drivers cabin by the ladder set when not clear off the cabin.

1.7.7 All the movements shall be automatically limited in their extreme position and the working cage shall be prevented from working outside of the permitted working range in any position.

1.7.8 An emergency stop switch shall be provided on all control panels, which shall switch off the hydraulic pressure of all movements. The unit shall be supplied with an emergency Back-up System, driven by a separate power generator.

1.8 TURNTABLE

1.8.1 The turntable shall be fully integrated steel structure containing center post, sliprings, water line, etc. duly fastened to the main frame by means of slewing ring.

1.8.2 A rotation drive with reduction gear and automatically operating braking system shall be installed on the turntable with easy access for maintenance and adjustment.

1.8.3 The base control station shall be attached to the turntable so as to rotate with it and be accessible in all positions of the turntable.

1.8.4 The center post shall contain slip rings with double pins for electrical connections and hydraulic pressure and tank lines to allow continuous rotation of the turntable.

1.8.5 The fasteners retaining turntable to the rotation mechanism shall be of propel and shall torque properly.

1.8.6 The rotation gearbox fastener shall be of proper grade and torque with proper backlash.

1.8.7 Pins securing the hydraulic cylinders to ladder set and turntable shall be properly installed and secured.

1.8.8 The hydraulic hoses, tubings and connections provided in the turntable shall be free from kinks, chaffing or leaks.

1.8.9 There shall be provision for the manual rotation of turntable in case of failure of hydraulic system.

1.9 BODY WORK & EQUIPMENT LOCKERS

1.9.1 The frame for the bodywork shall be made of bolted extruded aluminium structure for maximizing corrosion resistance and minimizing weight. Steel structures shall not be accepted.

1.9.2 The complete external paneling of the rear body shall be made from Aluminum sheet and/or GRP, fitted to the structural member either by gluing or riveting or screwing.

1.9.3 The complete flooring of the rear deck shall be made from non skid aluminum plates not less than 3 mm thickness.

1.9.4 For the easy access to the rear deck from ground level, there shall be sufficient numbers of recessed steps on both sides of the vehicle provided with suitable grab handles.

1.9.5 Equipment lockers shall be bolted together from aluminium sheets for easy repair. All lockers shall be fitted with rollup shutters, properly sealed to be water and dust proof. All lockers shall be fitted with automatic switches activating the lights as soon as the locker is opened and also activating the warning in drivers cab to indicate exactly which lockers are not fully closed.

1.9.6 Sufficient numbers of lockers shall be provided on both side of the vehicle for keeping various accessories and equipment that are required to be detached from the cage and stowed. The locker shall be so made that load distribution on both sides is equal.

1.9.7 There shall be bench type crew seat suitable for 4 Fireman fitted on the rear deck in the driver cabin. The seat shall be properly upholstered and shall be provided with seat belts.

1.10 STABILISING/JACKING SYSTEM

1.10.1 The Jacking system shall consist of hydraulically operated four outriggers mounted intheir housings in the main frame. Each housing shall be fitted with adjustable guidesto provide smooth and accurate movement of the outrigger beam. The outriggerpiston rods shall be completely protected by closed steel profile.

1.10.2 The jacks shall have the ability to stabilize the vehicle from behind obstacles and to be placed on raised structures as necessary. Each side shall have two separate stabilizers.

1.10.3 The jack shall be provided with ground pressure sensors, which shall be correctly actuated before the ladder set is operated, to ensure proper stabilization. Measured pressure values from each jack shall be displayed digitally with proper graphics on the control panel screen.

1.10.4 Each jack shall be provided with a square, self-aligning footplate to spread the load evenly and allow the operation on uneven ground.

1.10.5 The system shall be able to level the vehicle up to 7 to 7.5 degrees sideways and with automatic leveling system.

1.10.6 The jacking system shall be controlled by two separate control panels, depending upon the side of the vehicle (each one at the R/H and L/H side). The panels shall have the following controls graphical indications.

(1) Front and rear outrigger beam out

(2) Jacks down

(3) Automatic axle locking mechanism

(4) Cage folding switch

(5) Vehicle leveling gauge

Emergency stop push button

1.10.7 JACKING SYSTEM

1.10.7.1 All the jack movements shall be infinitely variable within the full jacking width.

1.10.7.2 The Jacking systems shall allow operating each jack individually and the jack projection shall be recognized by the controlling system and the maximum outreach shall automatically be calculated as per the jack width.

1.10.7.3 The jacks shall be controlled individually or in pair with lever/joystick and the control panel shall be situated in such a position, that the operator will have clear look to the right and left hand side while extending the jacks. The control panels shall be located at the rear side of the vehicle.

1.10.7.4 Yellow Flashing warning lights shall be provided at the outer most point of the jacks to identify the position of the jacks during night operation.

1.10.7.5 Four wooden, electric conductive, spreader plates shall be provided for the use, when the vehicle is to be operated on soft ground.

1.10.7.6 The stabilizing system shall also preferably incorporate axle-locking mechanism.

1.10.7.7 The outrigger controls shall be closed with flaps. There shall be a light for night operation (switched on by the driving light of the chassis).

1.10.7.8 The vehicle shall be provided with inclinometer preferably be digital which will measure both fore, aft, and side ways inclination of the vehicle.

1.11. ELECTRONIC SAFETY AND OUTREACH SYSTEM

1.11.1 The computer-controlled and stabilized system shall allow the outriggers to be positioned and the system shall be capable to select automatically the maximum allowed outreach to front, rear, right and left side.

1.11.2 The CAN Bus system shall permanently calculate the possible outreach of the ladder set to the front, rear, right and left hand side. The real time calculation shall take the following into consideration:

1. The actual position and ground pressure of the jacks
2. The load of the ladder set (wind load, cage load, additional load)
3. The angle of elevation
4. The extension length of the ladder set
5. The turning angle of the turret

1.11.3 The load on the ladder set shall be measured by means of 3 load measuring bolts. In addition the load has to be measured by integrated load measuring sensors in the ground plates of the jacks (black and white switches are not allowed!).

1.11.4 The display units of the system shall show maximum possible outreach and position of the working cage in real-time along with other details with easily interpreted graphic display, where in safe outreach limit areas are shown in a different color back ground.

1.11.5 The electronic system shall be made in CAN-BUS technology and approved according to the valid standards and directives. The system shall be EMC tested (EU directive 89/336/EEC) and CE type tested by TUV or any other appropriate agency.

1.12 CAGE

1.12.1 The working cage shall he attached to the tip of top section and it shall be foldable. Additionally the cage shall also be detachable. There shall he sufficient space forthree persons and safe working load shall not be less than 270 kg excluding the equipment permanently mounted in the cage. The working cage shall be kept horizontally leveled in any position of the ladder. The leveling system shall be controlled by an automatic horizontal level monitoring device with two fully automatic and independent safety circuits in case of an uncontrolled leveling failure. Manual emergency control of the cage leveling system shall be provided in the cage and master control position.

1.12.2 The levelling movement shall be achieved with a hydro-mechanical system, located well protected below the cage. The independent levelling systems shall be able to carry the entire safe working load alone. The controls for folding over and in working position shall be integrated into the control panel for the jacking system. The entrance to the cage shall be provided from the front and rear.

1.12.3 The cage shall be made of tubular aluminium profile reinforced with stainless steel. The dimensions of the working cage shall be so that safe fire fighting and rescue operations can be carried out with three persons in the cage. The top railing over the doors shall be locked from opening accidently with the help a locking system so that one will not fall over when the cage door is opened.

1.12.4 To rescue persons, in lying down condition, provision for a swiveling stretcher and stretcher basket support which can be attached to the rescue cage in the front or rear shall be supplied. Provision shall be made so that stretcher baskets shall also be used. The stretcher basket shall be designed to carry the empty stretcher even if three fire fighters are in the cage.

1.12.5 The cage shall be designed for a safe working load that is not less than 270 kg when no water is being discharged. It shall be tested for minimum 1.5 times load capacity for static conditions. Operator must be able to enter cage before ladder system is being un rested allowing seamless operation from the cage only.

1.12.6 The cage shall be quick removable type whenever needed.

1.12.7 In case of failure of electricity an emergency cage leveling operation shall be provided near the main operator's seat.

1.12.8 The cage control shall allow all ladder movement to be performed infinitely variable, but within the safety limits. During cage operation, the movement shall be automatically controlled by the safety system. When the ladder is operated from the cage, the speed of movements shall be the same as ladder control from main control consol.

1.12.9 The working cage control panel incorporating all control levers and safety system indications shall be fitted in the rescue cage in a suitable position so as not to hinder the easy and safe operations. The Joy stick/Levers in the cage shall be identical that of the main console. The cage control panel shall always be visible and accessible, even when the additional equipment is used by the fireman. Two LED flood lights and two spot lights shall be provided in front of the cage for illumination during night operations. These lights shall be adjustable up down and sideways.

1.12.10 The cage control panel shall be fitted with the following important warning, indication and control devices as shown in 1.12.11 and all shall be marked by clear symbols for easy recognizance.

1.12.11 Operation/safety control switches/buttons

1. Starting and stopping of chassis engine
2. Starting and stopping of generator
3. Joystick control level for each movement
4. Emergency stop button with lock
5. Manual operation for the working cage leveling system shall be provided at the main control position on turntable (Not in the cage ie. cage leveling must be possible without operator in the cage)
6. Graphic display of remaining outreach in direction of ladder movement and cage position.
7. Foot pedal for oil pressure ON/OFF (Dead man Type)
8. Buttton for lighting ON/OFF
9. Button for automatic housing of ladder

1.12.12 Microphone and speakers for intercom system

1.12.13 Operation display screen. (LCD) with the following indicators

1. Graphic and audible indication for exceeding safe working load
2. Visual warning for activation of working cage and ladder collision
3. Graphical indication for extended outriggers
4. Graphical indication for the rescue ladder "safe to climb"
5. Digital reading of actual rescue height
6. Digital reading of remaining outreach
7. Digital reading of remaining cage load
8. Digital reading of actual wind speed
9. Button for cage light ON/OFF.

1.12.14 Wide angle auto focus, fixed video camera shall be installed on the cage front with image transmission to the main control stand display.

1.12.15 A cage collision system shall be provided to sense the possibility of collision to the cage with any obstruction and all ladder movements shall stop automatically when the cage collision system is activated.

1.12.16 The machine shall be equipped with a feature that works in such a way that the route travelled by the cage to reach a particular position may be retraced automatically for a number of times. This mechanism shall be activated by push button on both the cage and main control panel.

1.12.17 Main operator's seat shall be located on the L/H side of the turntable base.

1.13 HYDRAULIC SYSTEM

1.13.1 Hydraulic power shall be provided by one axial piston pump, which is driven by the vehicle power take-off. The power provided shall not be less than 50 kW ensuring high speed operations.

1.13.2 Without any operation of the aerial device, the pump shall operate on minimum flow and minimum pressure. When one of the movements is operated the control valve automatically shall increase the pressure to a pre-set constant level and the oil flow to the amount that is needed for the movements activated. The oil flow shall increase automatically according to the need in the system when several movements are operated simultaneously and all movement speeds shall be independent on each other. The constant pressure system with max pressure setting shall prevent overloading of the system and its components.

1.13.3 There shall be a provision of instant couplings for attachment of manometer in each pressure line for checking pressure of each circuit.

1.13.4 There shall be proper and efficient filtering system to prevent the entry of foreign particles in to the hydraulic system.

1.13.5 All hydraulic cylinders shall be double acting with hard chrome plated piston rods and shall be fastened by means of preferably self-aligning ball bearings to prevent lateral forces from damaging the seals or piston rods of the cylinders.

1.13.6 The Hydraulic oil tank shall be mounted separately on the vehicle. Integrated oil tanks in the main frame shall not be permitted. The tank shall be fitted with oil level gauge, temperature gauge, suction connections with closing valves for easy maintenance and draining outlet with closing valve.

1.13.7 Hydraulic oil cooler shall be provided with automatic temperature control device for continuous operation during the hot climate.

1.14 BACK - UP FOR THE HYDRAULIC SYSTEM

1.14.1 In case of failure of main engine of vehicle, the hydraulic power for all necessary ladder movements shall provide via a separate electro-hydraulic pump (400 Volt). The electro-hydraulic pump shall be provided at a suitable place for safe and easy operation.

1.14.2 There shall be a separate power generator mounted at a suitable place on the turntable, providing electricity to the hydraulic pump, which will provide independent means of hydraulic power in case of failure of main engine of vehicle. The power generator shall be able to start from the main control panel and the working cage control panel.

1.14.3 In case of electronic failure of main control panel system, emergency operation of all ladder movements shall be possible. All the ladder movements shall be safely controlled with the manual hydraulic system from the main control consol.

1.15 CONTROLS AND SAFETY

1.15.1 The Electrical supply needed for control system shall be taken from the vehicle battery which shall be charged when the engine is running.

1.15.2 When the vehicle is in operation yellow flashing warning lights mounted on the outriggers shall automatically remain on.

1.15.3 Retracting of any of the outriggers shall be automatically prevented as soon as the ladder have been lifted from their travelling position. Similarly lifting of the ladder from the travelling position shall be prevented until the outriggers have reached the support width and ground pressure.

1.15.4 The engine starting and stopping switch shall be provided on all four control panels. And an emergency stop switch shall be fitted at ladder control panels and both jacking control panels to provide immediate and complete "freezing" of all systems in case of an unexpected emergency.

1.15.5 All ladder movements shall be electronic-hydraulically controlled by means of servo valves. The control function shall not be sensitive to changes of ambient or oil temperature, thus providing smooth, safe and very accurate movements even in most severe operating conditions.

1.15.6 The control system shall have the capability to record and retract the previous travel path of the cage.

1.15.7 The speed of the ladder for lowering and extension shall be automatically reduced at maximum outreach. The ladder lifting speed shall be reduced before the maximum elevation.

1.15.8 All control movements can be performed by the control system from both control panels. The system shall consist of two displays, the graphical display and real time information about the outreach and the cage position and also to show possible movements according to cage position. In the text display there shall be main texts for:
Warnings
Emergency situations
Help manual
Fault finding system

1.15.9 There shall be two independent drive elements to secure the ladder set of which each is capable of keeping the ladder in its present position during the ladder movements. Operating the ladder by means of hydraulic winch system is not permitted.

1.15.10 There shall be an inter lock, which only permits the ladder sets to be lifted from the head rest and thereafter other movements are possible.

1.15.11 An automatic hydraulically operated and electronically control leveling system (plumbing) shall be active at all elevation and inclination angles. It shall guarantee that, the rounds are always horizontal upto angle of 7.5°. The plumbing mechanism can be switch off/on from the main control console.

1.15.12 For the stability of the ladder, the speed of all the movements shall slow down smoothly and automatically before reaching the final position and automatically stop all movements in the defined final position. The limiting system of the Ladder must meet the safety standards. An overload warning shall be fitted to give audible and visual warning in case of exceeding the safe working load.

1.15.13 For the tactical requirement during the emergency operation, there shall be a system which allows the ladder to reach the operational limit beyond the free standing limit when the ladder head is supported against the wall.

1.15.14 When the ladder reaches to its optimal limits, there shall be automatic final stopping of all ladder movements, except for retraction and rotation.

1.15.15 There shall be a driver's cabin protection mechanism which will stop respective ladder movement to avoid collision of ladder with cabin.

1.15.16 There shall be an impact cut out which will stop all ladder movements.

1.15.17 All ladder movements shall be electronically monitored and limited at their most extreme position, thus making it impossible for the operator to reach an unsafe configuration by normal means of operation. The movements having direct influence on the stability of the aerial shall all be fitted with two separate limiting circuits, the first one stopping that particular movement, the second one deactivating all electric and hydraulic system should the first circuit not have worked.

1.15.18 All load bearing hydraulic cylinder shall be fited with lock valves directly integrated in to or on to the cylinder structure to prevent the ladder, the working cage and the outriggers from retracting in case of a pipe or hose failure.

1.15.19 There shall be a control light for the axle locking system which will be mounted on the dash board. The signal will remain on when the PTO is switched off. But the axle lock is not disengaged, or the cage is still in operation preferably with warning buzzer.

1.15.20 The major movements including lifting of the first ladder section to its maximum elevation and extending the telescopic movement or lowering the first ladder section at the maximum outreach shall be fitted with slow down devices to provide smooth deceleration of the movement. If the maximum outreach is achieved, only a retraction or rotation is possible.

1.15.21 There shall be a load measuring system for stability and security of the ladder. The ladder movement shall stop automatically due to projection and/or additional load such as rescue persons, in conjunction with the jacking widths and actual remaining loads.

1.15.22 No bleed down system shall be allowed for safety reasons. System shall be either manually retracted with electric or manually driven emergency pumps or manual control of servo valves.

1.16 OPERATING RANGE DISPLAYS

1.16.1 An operating range display shall be provided at main control console and cage control console, which shall provide information to the operator. The various signals coming from the sensors, computer shall be processed and visually represented in the form of text or symbol on the display.

1.16.2 A scale down representation of the actual available range of operation shall be displayed showing exactly the ladder position, projection, ladder length, height and angle of elevation.

1.16.3 A microprocessor shall control and monitor all ladder movements and safety system. If the safe operating limit is reached, the ladder movement shall be blocked automatically and a corresponding Message/indicator shall be shown on display screen. It shall be possible to bring the ladder system back to safe working limits. Override buttons for further retraction are not permitted.

1.16.4 Display shall show text massage of operational faults including its consequences

1.16.5 The operating range display shall be illuminated suitably for easy reading during the night operation.

1.17 CONTROLS AND INDICATORS IN DRIVERS CAB

The following control and indicators shall be provided in driver's cabin.

1.17.1 Visual warning for the main power switched on

1.17.2 Visual warning for specific equipment locker being open

1.17.3 Visual warning for the ladder set not being fully in transportation position

1.17.4 Visual warning for the rear axle being locked

1.17.5 Visual warning for the outriggers not being fully in travelling position

1.17.6 Switch with visual indication for rotating beacons

1.17.7 Switch with visual indication for siren unit and switch for horn

1.17.8 Microphone for the public address system

1.17.9 Switch for PTO Activation

1.18 THE WATER MONITOR

Electrically operated monitor attached to the cage, manually connected to the water system. The monitor shall be made of light alloy and it shall be fitted with jet/fog nozzle with maximum nominal capacity of 2000 LPM at 8 bar, with throw not less than 50 mtrs. The monitor shall be electrically controlled from the main control at the turntable of the vehicle as well as from the cage. Remote control facility shall be available for the Monitor for enabling operations from the ground. Water monitor should have -15 to +75 degree vertical movement and 30 degree horizontal movement on both sides.

1.19 THE WATER WAY SYSTEM

1.19.1 There shall be a telescopic water way system installed in the ladder sections throughout. The diameter of the waterway shall be sufficient to meet the performance of the monitor.

1.19.2 The water line shall be protected from possible over pressure, by means of relief valves mounted in the water supply line.

1.19.3 The water shall be supplied via foldable hose and fixed pipe in the upper ladder section to the monitor. There shall be provision to take water from outside and such connections shall be with 63 mm instantaneous male couplings.

1.20 INTER COMMUNICATION SYSTEM

1.20.1 There shall be cordless talk back inter communication system fitted for communication between the turntable and the cage

1.20.2 The system shall be combined microphone and loudspeaker for hands free operation and shall be located in the cage. The turntable control station is also equipped with microphone, which shall be integrated in the loudspeaker with volume control.

1.20.3 The microphone and the loudspeaker shall be sealed properly and it shall be protected from the ingress of water, dust and humidity.

1.21 ELECTRIC SYSTEM

1.21.1 The electrical supply shall be taken from the vehicle batteries, which are kept, charged when the engine is running. Voltage of the system shall be 24V DC and all circuits shall be provided with specific fuses depending on the current consumption of that circuit.

1.21.2 When the main current is switched on, yellow flashing warning lights located at each outrigger and ladder pivoting point and underneath of the working cage shall automatically be switched on.

1.21.3 Three colour light bar (Red, Blue and white) with two tone hooter shall be provided on the front rooftop of the drivers cab and flasher lights at the rear of the vehicle on the ladder set. The light bar shall have minimum 1 meter length.

1.22 SIREN AND PUBLIC ADDRESS SYSTEM

1.22.1 There shall be an electric siren unit fitted on the roof of the vehicle cabin or at a suitable place with the control unit mounted conveniently inside the driver cabin Control panel of the system shall be conveniently located for the driver and it includes switches for fast (yelp) and slow (wail) sounds.

1.22.2 There shall be a command microphone, fitted with push-to-talk switch, to allow the public address message to override the siren function.

1.23 FIRE PUMP

1.23.1 The vehicle shall be equipped with a built in, centrifugal, fire pump with one 100mm U threaded suction inlet (manual lock-up flap, fixed with blank cap) and four 63mm instantaneous pressure outlets fixed with blank caps. The centrifugal fire pump shall be UL-listed. The Pump shall be powered by the truck engine via a PTO. The pump performance shall be not less than 3500 l/min at 10 bar.

1.23.2 Pump shall be made of light alloy and the plumbing shall be of galvanized steel. The suction inlet shall be furnished with a manual valve.

1.23.3 The pump shall be equipped with a manual drain valve.

1.23.4 Automatic priming system with manual over ride shall be provided.

1.23.5 The pump shall be equipped with a pressure distributor for all deliveries (63mm). Each discharge shall be equipped with a gate valve with pressure relief.

1.23.6 An automatic pressure governing device shall be provided to maintain the selected water pressure even without pump operator.

1.23.7 The pump shall come complete with pump control panel. The pump panel shall have the following indicators/gauges:

Pressure at outlets (bar)

Pressure/Vaccum at inlet (bar)

PTO actuation (from cabin and pump control cabin) Hour meter

Engine oil pressure warning lamp

Switch for pressure governor

Priming control

1.24 RESCUE LIFT

1.24.1 The vehicle shall be equipped with a rescue lift, attached to the top of the ladder set. The rescue lift shall be designed for three people (min. 270 kg) and it shall be operated from the main control console and from the Lift.

1.24.2 The ladder shall be designed in such a way that there is a safe rescue way from the lower position of the rescue lift to the working deck of the vehicle on the turntable or to the ground.

1.24.3 The lift shall complete one to and fro movement through the entire extended length within 2 minutes during rescue operations, in fully loaded condition.

1.24.4 In transport position the rescue lift shall be folded, so that the height of the vehicle is kept at a minimum, as specified herein.

1.24.5 The rescue lift shall be operated by an electro-hydraulic operated cable winch. The rescue lift shall have automatic safety devices, stopping the lift in case of any emergency or winch failure. There shall be provision to operate the winch manually in case of such failures.

1.24.6 For quick and safe rescue operations the ladder shall be designed in such a way that there can be one fire fighter in the rescue cage, while three persons are entering the rescue lift at any maximum possible working height.

1.25 REAR VIEW CAMERA

Rear view camera shall be provided for the vehicle with 7 inch LCD screen within the cabin. The camera shall have minimum 120^0 field of vision with a 1/3 inch image sensor.

1.26 GPS AND NAVIGATION

1.26.1 GPS SYSTEM

GPS system shall be provided in the vehicles to locate the vehicles. Full software support for a period of 3 years (5 yrs.) to be guaranteed with the system. The structure should be compatible with windows and android platforms.

1.26.2 NAVIGATION SYSTEM

Navigation System with full Kerala locations (Cities, Towns and Villages) shall be provided.

1.27 PAINTING & MARKING

1.27.1 Before painting all surfaces of steel structures shall be carefully shot blasted after which they shall be primed and then applied two coats of approved paint. The ladder set shall be painted from all sides.

1.27.2 The following Paint shades shall be used:

1.27.3 Ladder, Working Cage and Wheel Rims: White Aluminum

1.27.4 Ladder support, Turntable & Related cylinders : Fire Red

1.27.5 Body work including cabin and turntable: Fire Red

1.27.6 Chassis frame touch-ups: Chassis original tone

1.27.7 The words "KERALA FIRE & RESCUE SERVICES" shall be painted in letters of 10 cm. height on one side of the body of vehicle in golden yellow colour paint. Same text in " Malayalam Font" shall be painted over the other side in same manner. The name of the department "KERALA FIRE & RESCUE SERVICES" in form of sticker in fluorescent red letter in yellow background shall be affixed on the top of the front wind screen glass.

Emblem of the department shall be affixed on either side of the cabin front Door (Model shall be provided by the department) 'Dial 101' shall be written on all the four sides of the vehicle on yellow background in black letters.

1.28 ACCESSORIES

1.28.1 Wooden outrigger ground pads/ plates with brackets—4 Nos.

1.28.2 Working range diagrams, at turntable & in the cage—2 Nos.

1.28.3 Marking of safe working load in the cage—1 No.

1.28.4 Warning labels and instruction plates—2 set

1.28.5 Operation and maintenance manuals (in English)for Turntable ladder and Chassis—2 sets

1.28.6 Plug for 230 V (3 Nos.),
400V working light at the turntable and in the working cage—1 No., and
24 Volt Socket-1 No.

1.28.7 Lifting hook under the first ladder set of capacity not less than 2000 kg—1 No.

1.28.8 Swiveling stretcher support c/w suitable folding structure to be installed on the cage when needed—1 No.

1.28.9 Positive pressure ventilator of Minimum 18000 m^3/hr capacity—1 No.

1.28.10 Set of tools & accessories required for the repairs & maintenance of Turntable ladder chassis, & other systems—2 set

1.28.11 Safety belts for cage occupants—4 Nos.

1.28.12 Tool box with following tools—1 No.

Screwdriver Set

Hammer 5kg & 2kg

Measuring Tape 30M.....

Plier.

Utility Knife and Blades.

Adjustable Wrenches.....

Combination Spanner set.

1.28.13 Safety Rescue line strong enough to hold 200 Kg and with length 70 mtrs.—2 Nos.

1.28.14 Collecting Head, 1x4" Female U threaded outlet-4 x 2½" instantaneous male inlet with non return valve between both inlets

1.28.15 Basket Stretcher for rescue operations of people in lying condition, attachable to the stretcher—support on the cage—1 No.

1.28.16 2½" Safety Pressure Valve for Monitor Supply Line—1 No.

1.28.17 Service Laptop

Service Laptop with compatible software related to the system shall be provided. The laptop shall be mounted in front of the co-drivers seat and it shall be connected to the on-board electrical system. If required, it shall be possible to detach the computer for outside fault finding operation.

In addition, the vehicle shall be equipped with a GSM transponder system, which reports anomalies of the vehicle control system to a centralized database, maintained by the manufacturer. The information shall be reported back to the purchaser via automated E-mail system.

The vehicle shall also be equipped with a GPS module, allowing to visualize the location of the vehicle on a satellite image in a permanent basis.

Visualization shall be enabled on any commercially available personal computer connected to the world wide web utilizing a standard web browser.

A detailed description of the system shall be provided with the offer.

1.28.18 Portable power generator with not less than 13 kVA

- Mobile power generator shall be made according DIN 14685/ relevant Indian standard; and coloured red
- Weight without gasoline, but with motor oil: not more than 150 kg
- Fuel tank volume: not less than 12 litres
- Integrated electrical starter with battery.
- Multi coloured LED-Display shall indicate total power, phase load and voltage control for every phase and fuel level indication; integrated emergency switch off button with optical and acoustical indication shall be provided
- 3-way-fuel tap for continuous jerry can operation shall be provided
- Integrated FIRECAN-connection for external power supply and CAN-bus signal transfer shall be provided
- All operating elements should be arranged at the front side of the panel
- Solid frame made of high-strength aluminium shall be provided
- High performance exhaust made of stainless steel for an extended life time
- Optical and acoustic warnings and safety indicators like engine temperature, fuel temperature, engine oil etc.; also faults should be indicated optically and acoustically with error codes
- There shall be a fuel tank with safety tank lock and filler hole.

  Four insulated carrying handle, bars for simple and safe handling by four persons shall be provided.

1.28.19 Sufficient length of hose shall be provided for connecting the water supply line from the bottom of the vehicle to the feeding line of the monitor when the ladder is in extended condition. The Hose shall comply with relevant NFPA/IS Standards

1.29 INSTRUCTION MANUALS

Two sets of complete instruction manual for the operation and maintenance of Turntable ladder unit (including all systems), chassis and itemized spare parts list shall be supplied along with electrical circuit diagrams, hydraulic circuit diagrams, etc. All the manuals, circuit diagrams, literature etc. shall be in English language. Instruction manual shall be provided in CD also with illustration videos.

1.30 DRAWINGS

1 .30.1 The lay-out drawings of turntable ladder duly mounted on chassis specified herein shall be submitted along with the tender.

1.30.2 The working range diagram along with all the details shall also be submitted along with the tender.

1. 31 RTO CLEARANCE

1.31.1 The vehicle shall confirm in all respect of the provisions contained in the Indian Motor Vehicle Act 1988 & Motor Vehicle Rules 1989 or to any other statute modifications or any reattachment thereon from time to time.

1 .31.2 All the Equipment/Document necessary for RTO's clearance shall be provided on vehicles.

INSPECTION OF THE APPLIANCE

On completion of fabrication of appliance, the bidder shall arrange or inspection of the appliance at manufacturing site to check the compliance with departmental technical specification. A team of 7 officers will be deputed by the department to carry out the inspection each time.

The entire cost of such inspection shall be met by the bidder (such as travel expenses and facilities, food and accommodation and all other expenses in connection with the inspection). Cost for Visas, if required, to be borne by the contractor and Visa arrangement will be done by the contractor.

RELATED SERVICES

Installation and Commissioning

The Supplier shall install, test and deliver Turntable ladder and all associated equipment & accessories required. After delivery of all equipment with turntable ladder, the Supplier shall demonstrate the efficacy of the goods as specified in technical specifications at final destination for each equipment on purchaser's demand.

Training to Technical Personnel

The Supplier shall impart training adequately to the Purchaser's representative/ personnel in the following manner either at factory site/final destination.

The Supplier shall have to make their own arrangement for transportation, boarding and lodging of the trainers and installation team.

The supplier shall provide training material and lecture notes to all the trainees.

The supplier shall assist in minimum three mock exercise of emergency handling with the equipment for complete understanding and working of equipment during such operations.

Service and Maintenance during warranty period.

The warranty period shall be of 60 months. The supplier will be responsible to provide service and maintenance during warranty period as and when required at the place of respective instruments installed. If repair/maintenance is not possible on the site where instrument is installed, shall be carried out at the nearest service station of supplier (if within country and agreed by the purchaser).

The supplier shall attend/rectify the defect within 72 hours. Any break down period more than this period, shall be added to the warranty period.

The supplier should provide the service report (type/cause of break down) to respective officer.

The annual maintenance contract inclusive of all spares be quoted in the Bid for minimum 10 years. The spare parts used at the time of periodical services shall be original and brand new.

The servicing and repairing of vehicles including chassis shall be carried out through skilled workers certified by the manufacturer.

All the tools, consumables etc. required for the servicing of the vehicle shall be arranged by contractor.

The complete servicing of the vehicle shall be carried out well in advance as per the provisions of motor vehicle act and Central Motor Vehicle Rules when the vehicle is due for renewal of mechanical fitness certificate.

Necessary steps shall be taken from the part of the supplier to attend any break down of vehicle on emergency call or on road.

Any damage to the vehicle due to improper handling or due to accidents shall be attended promptly and the cost on account of such repairs including the cost of spare- parts shall be got approved from Director General, F&R/S TVM. The tenderer shall give the details of work to be carried out at periodical interval of 6 months along with the offer.

			Conditions
1.	Essential documents to be submitted along with the tender	—	Pamphlets, Manuals, Brochures, Photograph, Drawings CD etc. (In English language)
2.	Period of delivery	—	Within 9 months from the date of execution of the agreement.
3.	F.O.R.	—	Thiruvananthapuram.
4.	Payment	—	100% Payment against delivery of TTL and acceptance by an acceptance committee.
5.	Warranty	—	A warranty of 60 months from the date of final acceptance.

6. **Other Special Conditions**:

1. EMD-1% of PAC in online payment. For those availing EMD exemptions shall upload valid, relevant necessary certificate, without which tender shall be liable for rejection without any intimation.

2. The items which are not as per specifications shall be rejected. Such rejected item should be collected within two week by the supplier at his own cost and this Department does not owe any responsibility to return the rejected material after two week.

3. The rate shall be quoted in Indian currency only.

4. The rates quoted should remain valid for a period of one year from the date of submission of tender.

5. Security deposit 5 % of total contract amount to be furnished as mentioned in the Notice Inviting E-Tender, which will be released after the expiry of the warrantee period to the entire satisfaction of the Director General, Kerala Fire & Rescue Services, and as per the terms and conditions of the Supply Order/Agreement and approved specifications.

6. The Earnest Money Deposit of the successful tenderers will be released on receipt of the Security Deposit and/or as per the terms and conditions of the purchase order.

7. The successful tenderers while on receiving the supply order have to enter into an agreement within fifteen days from the date of issue of supply orders. No correspondence will be made with the supplier in this regard and supply order will stand automatically cancelled and Earnest Money deposited will be forfeited to the Government Account, if the Agreement is not executed within fifteen days from the date of issue of supply order.

8. The bidders have to upload the Broucher/catalogues, if any of the equipment offered for scrutiny by the technical committee members along with requisite test certificates wherever applicable (in English Language).

   A presentation with details of the items to be supplied shall be made and presented before the technical committee during technical evaluation for better understanding.

9. Any breach of terms and conditions or failure to abide on the part of the successful bidder shall invoke forfeiture of the Earnest Money Deposit/Security Deposit in favour of the Government

10. Negotiations of documents against the payment through the bank will not be accepted. This being a Government Department, goods will not be insured at our end, however, supplier may insure the goods at his own cost and risk.

11. The items adjudicated to the successful tenderer will have to be supplied, installed and Commissioned within 9 months from the date of execution of agreement. No extension will be granted for reasons, which are not justifiable and acceptable to the Department.

12. If extension in delivery period is required, then the party shall submit the request letter in writing stating the grounds on which extension is sought. In turn, the Government (this Department) will grant extension in writing, only if satisfied with reasons given in the request letter. The letter in this regard should reach this office 15 days before the last date of supply.

13. In case of failure on the part of the supplier to complete the delivery, Installation and Commissioning within the stipulated date indicated on the supply order/agreement or failure to replace/repair the rejected material within the prescribed time period, a compensation at the rate of 1% per day on the total value of the articles to a maximum of 10% of the value of articles which remain to be supplied/replaced will be charged or will be reduced from the payment due to the party or otherwise. Earnest Money Deposit/Security Deposit will be forfeited in favour of the Government depending on merit/genuineness of the case.

14. The Director General, Kerala Fire & Rescue Services, at his discretion, may reduce/waive the amount of compensation depending on merit/genuineness of each case.

15. The supplies are liable for inspection and should be strictly as per the specifications and approved quality, else the same will be rejected.

16. The training of operating the equipment should be done by the supplier at destinations in Kerala. The cost towards training should be borne by the supplier, and shall be inclusive in the quote

17. The nationality of the tenderer should be indicated in the tender.

18. Tender fee is not refundable.\

19. The tender clauses are liable to alteration without notice and the decision of the Director General, Kerala Fire & Rescue Services will be final.

20. The successful tenderer should effect the supply as per approved specifications, rate and make.

21. All terms and conditions of this tender shall form part of agreement and purchase order.

22. The Director General, Kerala Fire & Rescue Services, reserves the right to purchase the full quantity of articles required or part thereof and also to accept or reject any or all tenders without assigning any reason.

23. Any firm whose proprietor, Partner or Director is involved in a Vigilance Case has been charge sheeted and pending trial at court in connection with fabrication/supply of similar product made earlier to this Department/Kerala Government are not eligible to participate and shall be barred from participating in this tender.

24. The tenderers should produce latest solvency certificate of Rs. 6 Crores or more and should have an average annual turnover of Rs. 2 Crores for the last 3 Years. The OEM should have an average annual turnover of Rs. 10 Crores for the last 3 Years

25. A valid Temporary Registration Certificate (T.P) for the Appliance shall be produced before the department, at the time of delivery. Renewal of temporary registration processes shall be performed by the fabricator at their own expense, till the acceptance of the supply by the Department. The bidder shall provide all assistance for the permanent registration of the TTL.

26. Anybody attempting to offer bribe or otherwise influence in any manner the officials of the Kerala Fire and Rescue Services or its supervisory levels in the Government will be disqualified.

27. The bidder/OEM should have sufficient previous records of supplying TTL/ALP to States, Union Territories and Public/Private Sector Undertakings in India, and the proof for the same should be produced in support. The bidder shall upload the records of the supply of TTL/ALP of similar or higher height by the OEM, to different Fire services during the last 5 Years.

28. The OEM shall be ISO 9001 and ISO 14001 or equivalent and the certificate to that effect shall be produced.

29. The vendor shall be responsible for the maintenance of the TTL for any defects or damages to vehicle due to bad workmanship or of any inferior material, accessories, apparatuses etc.

30. Any modification like Welding, drilling etc. on framework of chassis should be done as per the guidelines given by the chassis manufacturer. The vendor should submit load distribution chart on axles before starting the fabrication. All axels should be loaded within the maximum permissible pay load specified by the chassis manufacturer.

31. The chassis supplied shall have service support available in Kerala for rectification of the issues related to chassis. Details of the Service Centres shall be submitted

32. **Schedule and Progress reporting**

The supplier shall submit monthly progress report, updated procurement, engineering and manufacturing status, Schedule Vs. Actual every month beginning from the next month from the date of Agreement. In case of Exigencies, owner/Purchaser can ask for report submission as required on weekly/Fortnightly/Adhoc Basis depending upon supply status and supplier shall submit such reports promptly without any price implication. Schedule for execution and Format for progress report shall be submitted by the supplier at the time of Agreement.

33. **Third party Inspection and certification**

Third party inspection shall be arranged by the vendor. The vendor shall arrange all the facilities to carry out such inspection/Testing. The cost towards third party inspection shall be borne by the vendor. Third Party inspection agencies shall be selected from the following list for certifications of TTL as per European Norms. The agency selected shall have prior experience in inspection of TTL. Necessary proof on that behalf shall be, submitted

1. M/s LLOYD's Register of Shipping
2. M/s DET NORSKE VERITAS
3. M/s BUREAU VERITAS
4. M/s TUV Germany
5. M/s Underwriters Laboratory, USA

The schedule of Third party inspection and their remarks during each inspection shall be made available to the Department.

34. **Final Inspection**

The final performance test for the complete vehicle shall be witnessed by the Departmental Officials along with TPIA at Vendor's premises, before shipment.

The Inspection and the testing of the vehicle shall be witnessed at the factory premises of the Appliance manufacturer by the team of Departmental officers assigned by the Director General, Kerala Fire and Rescue Services. The travelling cost and accommodation for total 5 Officers of Kerala Fire and Rescue Services Department shall be included in the offer, for witnessing the final performance test for 3 days at manufacturer's country and facility. It is obligatory to the supplier to provide all the assistance and equipment for the inspection and testing of the TTL at their premises.

35. **Acceptance Test**

The acceptance test will be conducted by a committee constituted for that purpose, at the purchaser's option. The acceptance will involve trouble- free operation for seven consecutive days. The bidder shall ensure the presence of competent technical person from the part of the OEM for the acceptance test. There shall not be any additional charges for carrying out acceptance tests. No malfunction, partial or complete failure of any part of equipment/machinery/item or excessive heating, of motors attached to equipment especially mentioned in Bid/manual of the equipment. The supplier shall maintain necessary log, in respect of the successful completion of the test specified and the results of the tests to the entire satisfaction of the purchaser. The official acceptance of the TTL will be based on the Acceptance Test. The date of acceptance will be the date on which official acceptance of the TTL is recorded.

36. **Installation and Commissioning**

Installation and commissioning of the TTL in the purchaser's facility shall be done by the supplier.

37. **Training to Departmental Personnel**

The Supplier shall provide hands on training in operation and maintenance of the TTL to the Purchaser's representative/ personnel at the final destination, after the acceptance of TTL by the Department. The training shall be of minimum 7 working days.

The Supplier shall have to make their own arrangement for transportation, boarding and lodging of the trainers and installation team.

The number of trainees will be determined by the Department

The supplier shall provide a minimum of 20 sets of training material and lecture notes for the trainees.

The supplier shall assist in minimum three mock exercise of emergency handling with the equipment for complete understanding and working of equipment during such operations.

38. **Retraining Assistance**

A complete training package including instructional videos in audio visual format for internal retraining of the Department personnel must be supplied separately for each TTL Delivered (In English language).

39. **Service and Maintenance during warranty period.**

The supplier shall provide full warranty for a period of 60 months from the date of acceptance at the purchasers facility. The supplier will be responsible to provide all necessary service and maintenance during warranty period as and when required at the place of respective instruments installed. If repair/maintenance is not possible on the site where instrument is installed, shall be carried out at the nearest service station of supplier.

The supplier shall attend/rectify the defect within 72 hours. Any break down period more than this period, shall be added to the warranty period.

The supplier should provide the service report (type/cause of break down) to the Department. The spare parts used at the time of periodical services shall be original and brand new.

The servicing and repairing of vehicles including chassis shall be carried out through skilled workers certified by the manufacturer.

All the tools, consumables etc. required for the servicing of the vehicle shall be arranged by contractor.

The complete servicing of the vehicle shall be carried out well in advance as per the provisions of motor vehicle act and Central Motor Vehicle Rules Of India, when the vehicle is due for renewal of mechanical fitness certificate.

Necessary steps shall be taken from the part of the supplier to attend any break down of vehicle on emergency call or on road.

Any damage to the vehicle due to accidents shall be attended promptly and the cost

on account of such repairs including the cost of spare parts shall be got approved from Director General, F&R/S TVM.

GPS and GSM Transponder support shall be provided for the entire warranty period without any additional cost. The same shall be extended as per the demand by the Purchaser, after the warranty period. .

40. **Service Support**

The vendor shall have reasonable arrangements for service support of the Turn Table Ladder and firefighting system for rectifying the Defects in India. This shall be in the form of service partners, or tele-call facility for remote guidance for identifying and rectifying the problem. The Vendor shall furnish the details of such service arrangements.

41. **Availability of Spares and Technical Back up**

The Manufacturer must Guarantee the supply of spare parts and technical back up for the Super structure for a period of 15 years.

The Vendor shall submit a detailed list of spares with part numbers and cost for all equipment and accessories used in the TTL for future procurement.

The Vendor shall supply 3 sets of following hard bound manuals with index, with each TTL supplied (In English Language)

a. Operating manual containing Detailed operating Procedures and instructions for chassis, TTL, P&I Diagrams, Firefighting Sytems and all accessories

b. Maintenance Manual containing maintenance procedures and maintenance instruction for TTL, Fire Fighting System and All accessories along with the list of spare parts and spare part catalogues

c. As built drawings reviewed and stamped by the TPIA along with soft copies.

d. Periodic maintenance schedule for the TTL and related equipment.

42. **AMC chart and pricelist**

The Department may enter in to AMC for the appliance, after the warranty period. For the purpose of AMC, the vendor shall provide AMC chart and price list for a period of 5 years after the warranty period. The vender shall provide AMC for the above mentioned period, as per the demand of the Purchaser.

43. **Details of Contact person of the Supplier**

After the Agreement, the supplier shall assign a project Manager (Point of Contact) for the order and the details shall . be furnished to the Department.. The details include e-mail address, mailing address, Telephone numbers, Fax numbers and Name of the project manager. At the time of Agreement, Department will provide the details of contact person for the Department. All the communications, System generated e-mails, doubts, clarifications and changes etc. to that order shall be send between the contact persons only. Any information/ communication etc. shared between the contact person for both parties will be treated as the information/communication etc. shared between both parties.

44. All the documents, instructional materials, certificates, brochures and manuals shall be supplied in English language.

45. Tenderers shall agree to the above terms and conditions and shall be in position to complete the supply within the prescribed delivery period

Office of the Director General,
Fire and Rescue Service,
Thiruvananthapuram.

DR. B. SANDHYA. IPS,
Director General.

Medical Education Department

ദർഘാസ് പരസ്യം

(1)

നമ്പർ—[20/2021]

നമ്പർ സി2-15590/2021/സ.മെ.കോ.തി. 2021 ആഗസ്റ്റ് 27.

തിരുവനന്തപുരം മെഡിക്കൽ കോളേജ്/മെഡിക്കൽ കോളേജ് ആശുപത്രി എം.സി.എച്ച്. ഫാർമസി മെയിൻ സ്റ്റോർ വിഭാഗത്തിലേയ്ക്ക് ഇലക്ട്രിക്കൽ സാധനങ്ങൾ (ഇലക്ട്രിക് സ്റ്റാർട്ടർ, ട്യൂബ് ലൈറ്റ്, ബാറ്ററി മുതലായവ) വാങ്ങുന്നതിലേക്ക്/വിതരണം ചെയ്യുന്നതിലേയ്ക്ക് നിശ്ചിത ഫോറത്തിൽ മുദ്രവച്ച ദർഘാസുകൾ ക്ഷണിക്കുന്നു. ദർഘാസ് അടക്കം ചെയ്യുന്ന കവറിനു മുകളിൽ ദർഘാസ് നമ്പർ എഴുതേണ്ടതും പ്രിൻസിപ്പാൾ, മെഡിക്കൽ കോളേജ്, തിരുവനന്തപുരം-695 011, കേരളം എന്ന വിലാസത്തിൽ അയയ്ക്കേണ്ടതുമാണ്. ദർഘാസുകൾ താഴെ ചേർത്തിട്ടുള്ള തീയതിയിലും സമയത്തും അപ്പോൾ ഹാജരായിട്ടുള്ള ദർഘാസ് സമർപ്പിച്ചവരുടെയോ അവർ ചുമതലപ്പെടുത്തിയിട്ടുള്ള ഏജന്റുമാരുടെയോ സാന്നിദ്ധ്യത്തിൽ തുറക്കുന്നതാണ്. വൈകി കിട്ടുന്ന ദർഘാസുകൾ പരിഗണിക്കുന്നതല്ല.

ദർഘാസ് സമർപ്പിക്കുവാൻ താൽപര്യമുള്ളവർ മെഡിക്കൽ കോളേജ് ഓഫീസിൽ അപേക്ഷിക്കുന്നപക്ഷം ആവശ്യമായ ദർഘാസ് ഫോറങ്ങൾ താഴെ കൊടുത്തിരിക്കുന്ന പ്രകാരം തുക അടച്ചാൽ ലഭിക്കുന്നതാണ്. ദർഘാസ് ഫോറങ്ങൾ കൈമാറ്റം ചെയ്യാൻ പാടുള്ളതല്ല. ചെക്കുകൾ, പോസ്റ്റേജ് സ്റ്റാമ്പ്, ഡ്രാഫ്റ്റ് എന്നിവ ദർഘാസ് ഫോറത്തിന്റെ വിലയായി സ്വീകരിക്കുന്നതല്ല. ദർഘാസ് ഫോറം വി. പി. പി. ആയി അയയ്ക്കുന്നതല്ല.

അടങ്കൽ തുക—₹ 4,99,999.

നിരതദ്രവ്യം—₹ 5,000 (1%).

ദർഘാസ് ഫോറത്തിന്റെ വില (നികുതി സഹിതം):

ഒറിജിനൽ—₹ 1,680.

ഡ്യൂപ്ലിക്കേറ്റ്—₹ 840.

ദർഘാസ് ഫോറം വിൽക്കപ്പെടുന്ന അവസാന തീയതിയും സമയവും—28-9-2021, 3 മണി.

ദർഘാസ് ഫോറം സ്വീകരിക്കുന്ന അവസാന തീയതിയും സമയവും—29-9-2021, 2.30 മണി.

ദർഘാസ് തുറക്കുന്ന തീയതിയും സമയവും—29-9-2021, 3 മണി.

ദർഘാസ് നിരക്ക് പ്രാബല്യത്തിലിരിക്കുന്ന തീയതി—31-3-2022.

List of Items

Sl. No.	*Name of Items*	*Specification*	*Quantity*
1	Batterry	Big (1.5 V)	100
2	Battery	AAA	6000
3	Battery	AA	2000
4	Battery (Medium)	A	2000
5	3 pin plug top	16 AMP	40
6	Bulb Holder batten type	40W	20
7	Choke electronics	40/36W	500
8	Choke electronics-T5 type	28W	500
9	Electric starter	40W	500
10	LED Bulb	11W	500
11	Tube light-T8	40/36W	300
12	Tube light-LED Set	16/20W 4 F	200
13	3 pin adapter (Universal multi plug adapter) square to round		70
14	Three pin plug	6 AMP	50
15	3 pin socket (Universal)	6 AMP	50
16	Tube-LED	16/20W 4 FT	200
17	Pendent Holder		20
18	Three pin plug top	6 AMP	50
19	Fluorescent tube side holder	40/36 W	40

കൂടുതൽ വിവരങ്ങൾ പ്രവൃത്തി സമയത്ത് ഈ ഓഫീസിൽ അന്വേഷിച്ചാൽ അറിയാവുന്നതാണ്. ദർഘാസ് നടപടികൾ മുന്നറിയിപ്പില്ലാതെ നീട്ടിവയ്ക്കുന്നതിനോ നിർത്തിവയ്ക്കുന്നതിനോ ഉള്ള അധികാരം പ്രിൻസിപ്പാളിൽ നിക്ഷിപ്തമായിരിക്കും.

Tender Schedule

1. The period for which the rates to be in firm—One year.
2. The rates should be inclusive of sales tax and for free delivery at the department concerned, otherwise the tender will be rejected.
3. Advance payments conditions will not be considered.
4. Tender forms are neither transferable nor the cost of it will be refundable under any circumstances.
5. Tenders are to be sent with details and illustrated pamphlet (wherever necessary) neatly typed. Manuscripts should be avoided as far as possible.

6. Tenders should be accompanied with a formal agreement executed in ₹ 200 Kerala-non Judicial-Stamp Paper together with required sum of Earnest Money Deposits.

7. Earnest Money Deposits (one percentage) of the total cost of the articles quoted for, can be remitted by way of Crossed Demand Drafts drawn in favour of the Principal, Medical College, Thiruvananthapuram.

8. Firms will be exempted from furnishing Earnest Money Deposit if they had produced the duly attested copies of relevant certificate along with their tenders.

9. Tenders unsealed, unsigned or submitted without superscription as specified are liable to be rejected.

10. Tenders submitted with insufficient Earnest Money Deposit will not be entertained.

11. Belated tenders will not be considered under any circumstance.

12. For Medicines, Surgicals and Materials, Samples should be submitted along with the Tender. Tenders without samples will not be cosidered for selection.

13. Tenders should bear the signature and full postal address of the tenderers wherever necessary.

14. The undersigned reserves the right to reject any tender wholly or partially without any prior information to the tenderers.

15. Specifications of the items are given in the list.

16. Negotiation will be made only with the firm offering lowest price whose specification conforms to the requirements in the Tender Notification.

17. Tender will be opened in the presence of such of the tenderers or his authorized representatives who may present at the time. They should have valid authorization letters.

18. More details can be had from this office on working hours.

19. Amount quoted should be in Indian Rupees.

Govt. Medical College, (Sd.)
Thiruvananthapuram. *Principal.*

Irrigation Department

e-TENDER NOTICE

[No. CE (MECH)/T/06/2021-22]

No. CMU/P/1201/2016(Voll). *26th August 2021.*

The Superintending Engineer & Deputy Chief Engineer, Mechanical, PWD, Irrigation Department, Thiruvananthapuram for and on behalf of the Governor of Kerala invites e-tender from the original manufacturerer or their authorized dealers for the "Supply, Erection and Commissioning of 2 Nos. 50HP lift pump sets, starters and 1 No. vacuum pump set for Madhupalam Pump House".

In accordance with respective specification for supply of pump set as shown in tender schedule of this tender document, the tender is to be submitted as e-tenders through http://etenders.kerala.gov.in. Since this is an e-tender, only those bidders who have enrolled in the above portal with their own Digital Signature Certificate (DSC) can participate in the tender. E-tender document and other details can be obtained from the above portal.

Cost of tender documents—₹ 2,500 + 10% (Total ₹ 2,800)

Document sale starting date and time—27-8-2021 at 10 a. m.

EMD (Online payment)—₹ 19,500.

Date and time of commencement of online bid submission—27-8-2021 at 11 a. m.

Date and time of closing of online bid submission—25-9-2021 at 5 p. m.

Date and time of opening of bid—29-9-2021 at 2.30 p. m.

Bidders shall remit the tender document fee and EMD using the online payment option of e-procurement system only. Bidders are advised to visit downloads section of e-procurement website http://etenders.kerala.gov.in for detailed instructions on making online payment using internet banking facility of SBI or by NEFT facility. In the bid, the following documents should be submitted by online.

1. BOQ duly filled up and signed.
2. Technical data sheet duly filled up and signed.
   (a) If any more information to be furnished, separate data sheet shall be attached for additional information.
   (b) Scanned copy of family curve, performance curve etc. should be attached.

3. E-payment form duly filled and signed.
4. Proof of original manufacturer/authorized dealers attested copy of same.
5. Scanned copy of preliminary agreement executed in Kerala Stamp Paper worth ₹ 200.
6. EMD exemption certificate (if any) should be submitted online.
7. Other details if any required to be furnished in the special condition.
8. Form No. 14 duly filled and signed.
9. Tender notice and Special condition of tender duly signed.

Hard copy of all the above documents should be submitted on or within 3 days after bid opening. The bidders shall submit the hard copy of the bid containing the documents as noted in the above paras in sealed envelop. The sealed envelop addressed to the Superintending Engineer & Deputy Chief Engineer, PWD, Mechanical, O/o the Chief Engineer, Mechanical, Thiruvananthapuram should reach in this office on or before the time specified above. The envelop should be superscribed with Tender No., due date and name of work.

Tenders will be opened online in the presence of such bidders or their authorized representatives present at the prescribed time of opening before the Superintending Engineer & Deputy Chief Engineer, PWD, Mechanical, O/o the Chief Engineer, Mechanical, Thiruvananthapuram. If date fixed for opening happens to be a holiday or due to Net failure the tender will be opened in the next working day at same time and place.

The right to accept or reject of e-tender without assigning any reason is vested with the Superintending Engineer & Deputy Chief Engineer, Mechanical, PWD, Thiruvananthapuram.

The bidder is advised to submit the bids well before the stipulated date and time to avoid any kind of net work issues, traffic conjestions, etc. In this regard, the department shall not be responsible for any kind of such issues faced by the bidder. All the rules related to tender in Irrigation Department along with the rules and regulation prescribed for e-tenders by the Government of Kerala shall be applicable to this tender.

The bidder should have the GST registration and the registration number should be furnished in the tender documents.

Office of the Chief Engineer, (Sd.)
Mechanical, *Superintending Engineer &*
Thiruvananthapuram. *Deputy Chief Engineer (FAC).*